NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Thursday, November 13, 2003, 1:00 p.m.
State Capitol, Room 1524
Lincoln, Nebraska

AGENDA

Meeting Documents:
Click the links in the agenda or click here for all documents (770 KB)

1:00 p.m. Call to order and Roll Call - Lt. Governor Heineman
Notice of Meeting
Approval of **September 30, 2003 Minutes***
Public Comment

1:15 p.m. Update on Major Initiatives

A. *Telecommunications Infrastructure*

1. NETCOM/CAP - Brenda Decker
2. K-12 Customer Profile - Alan Wibbels
3. Nebraska Telehealth Network - Roger Keetle
4. Statewide Synchronous Video Network - Mike Beach

B. *Community and Economic Development*

1. Status Report on Mini-planning Grants - Anne Byers
2. Broadband Policy Study - Anne Byers

C. *Delivery of Government and Educational Services*

1. eGovernment Initiatives - Steve Schafer

D. *Planning and Accountability* (No Update)

2:25 p.m. Statewide Technology Plan

A. Update on Action Items

2:30 p.m. Other Reports from the Councils, Technical Panel and Staff

A. Community Council Report
B. Education Council Report
C. State Government Council Report
D. Technical Panel Report - Walter Weir
Recommended Standards and Guidelines*

- Blocking E-mail Attachments
- Blocking Unsolicited Bulk E-mail / "Spam"
- IP Communication Protocol Standard for Synchronous Distance Learning and Videoconferencing
- Contracting Guidelines for Upgrade of Distance Learning Services

3:00 p.m. Other Business

A. Discuss possible statutory changes for the use of video conferencing for official meetings

3:15 p.m. Future Meeting Dates - 2004 Calendar
Adjournment

(Bolded * indicate Action Items.)

Meeting notice was posted to the NITC and Public Calendar Websites on October 28, 2003.
Agenda and meeting materials were posted to the NITC website on November 6, 2003.

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Tuesday, September 30, 2003, 1:00 p.m.
Videoconference Sites:
Executive Building-Videoconference Room 103, 521 South 14th Street, Lincoln, Nebraska
Kearney Public Library-Information Center, 2nd Floor, 2020 1st Avenue, Kearney, Nebraska
PROPOSED MINUTES

MEMBERS PRESENT:

Kearney Site: **Dr. Eric Brown**, Manager, KRVN Radio
Lincoln Site: **Greg Adams**, Mayor, City of York; **Linda Aerni**, Chief Executive Officer, Community Internet Systems; **Lieutenant Governor Dave Heineman**, Chair; **Dr. Doug Christensen**, Commissioner, Department of Education; **Trev Peterson**, Attorney, Knudsen, Berkheimer, Richardson, and Endacott, LLP; and **Dr. L. Dennis Smith**, President, University of Nebraska

MEMBERS ABSENT: L. Merill Bryan, Senior Vice President & Chief Information Officer, Union Pacific; H. Hod Kosman, Chairman and President, Platte Valley Financial Services Companies

CALL TO ORDER, ROLL CALL, AND NOTICE OF PUBLIC MEETING

Lieutenant Governor Heineman called the meeting to order at 1:35 p.m. There were six members present at the time of roll call. A quorum existed to conduct official business. It was stated that the meeting notice was posted to the NITC and Public Meeting Calendar Web sites on August 20, 2003 and that the meeting agenda and meeting materials were posted to the NITC Web site on September 24, 2003.

APPROVAL OF JUNE 2003 MINUTES

Commissioner Peterson moved to approve the June 10, 2003 minutes as presented. Commissioner Smith seconded the motion. Roll call vote: Adams-Yes, Aerni-Yes, Brown-Yes, Christensen-Yes, Heineman-Yes, Peterson-Yes, and Smith-Yes. Results: 7-Yes, 0-No. The motion carried by unanimous vote.

PUBLIC COMMENT

There was no public comment.

UPDATE – TELECOMMUNICATIONS INFRASTRUCTURE

NETCOM/CAP - Brenda Decker, Director of the State's Division of Communications
Phase I was awarded to Alltel. Implementation was to begin on October 1st. So far, state government is completed and the University of Nebraska will be next. The project will meet the October 15th cut-off date. Phase II has been awarded to Qwest Communications. Qwest will provide an ATM network. This network will help the project move forward with the statewide video networks. Final details of the contract are being negotiated. As a result of the project, this will be the first time that the State and University of Nebraska contracts will have the same end dates. The aggregation of high-density traffic areas can occur.

Questions/comments. Lieutenant Governor Heineman thanked everyone involved in this team effort, especially Commissioner Smith and the University of Nebraska. A press conference will be scheduled to announce Phase II. Commissioners were pleased with the collaborative efforts of CAP.

Commissioner Christensen arrived at 1:45pm.

Statewide Telehealth Network - Steve Schafer, Chief Information Officer
Mr. Schafer provided an update due to Ms. Byers attending the national Rural Telecon Conference. On September 17, 2003, representatives of the regional medical centers (which will serve as hubs for the telehealth network), the Public Service Commission, the Nebraska Hospital Association, and the NITC met. The meeting addressed several concerns of the Public Service Commission. Efforts are being made to incorporate bioterrorism preparedness into the plan for the Nebraska Telehealth Network. Mr. Schafer will invite Roger Keetle to the November 13 NITC meeting for a more detailed report.

Statewide Synchronous Video Network - Mike Beach
The Nebraska Statewide Synchronous Video Work Group was chartered by the Technical Panel of the Nebraska Information Technology Commission on November 8, 2002 to develop the technical and non-technical recommendations needed in order to provide for a statewide, interconnected, synchronous video network serving education, state government, and telehealth. State agencies, the University of Nebraska, and representatives from higher education institutions, K-12, libraries, and

telehealth have worked collaboratively towards this mission. Approximately one year ago, the video standards were adopted by the NITC. For the update, Mr. Beach reviewed the Preliminary Round One Recommendations brought forth by the work group. The document must be posted for a 30-day comment period. No action was required by the NITC at this time.

Interim Network Policy Work Group - Steve Schafer, Chief Information Officer
The previous three presentations are closely related to the Interim Network Policy Work Group. The CIO's office is mindful that there needs to be collaboration and coordination of all these efforts. Approximately one year ago, the NITC adopted the Network Nebraska Work Group to conduct a Network Feasibility Study. The work group submitted a final report and made several recommendations. The following two recommendations propose the establishment of a work group:

- Recommendation 9 reads as follows, "Under the auspices of the NITC, an interim work group composed of stakeholders should coordinate implementation of a shared Nebraska statewide IP-centric network (Recommendation 6). The work group should include stakeholders, with some representation of the Community Council, Education Council, and State Government Council. The work group should address technical requirements, network management, quality assurance and security needs."
- Recommendation 10 reads as follows, "Long-term functions of the network and a mechanism for constituent input could be delivered in a variety of ways. Issues to be decided include funding strategies, pricing and services to be offered, resolving technical problems, and establishing service levels. Funding options should encourage collaborative mechanisms for multiple independent entities to use existing resources as well as other available sources. The interim work group would research the advantages and disadvantages of different models and make a detailed recommendation to the NITC."

Councils have been involved with the membership and charter development and have approved the work group charters and membership at their meetings. The Work Group has been meeting on a regular basis. Thus far, the meetings have focused on the customer service manual that lays out decision-making, defining the customer, and end user support.

The following issues and/or concerns were discussed:

- Creating one more group may create more bureaucracy or give the impression of creating more bureaucracy.
- Several members of CAP are also on the Interim Network Policy Work Group, necessitating dual meetings..
- The timing of the work group to discuss policy, the structure for governance and operations may be premature prior to the implementation of the network.
- Calling the INPWG a users' group or advisory group rather than a policy work group may be more appropriate.
- The Interim Network Policy Work Group was seen as a means for all sectors to have a voice.

Options were discussed. It was the consensus of the NITC that the Interim Network Policy Work Group should serve in an advisory function to the CAP group. The topics of discussion and the frequency of meetings should be coordinated closely with the operational entities that are implementing the network.

UPDATE – COMMUNITY AND ECONOMIC DEVELOPMENT

Ms. Byers was attending the national Rural Telecon Conference. Mr. Schafer was available for comments and/or questions. Commissioners were provided a written report on the following items (links provide a detailed report):

Status Report on CTF and Mini-planning Grants
Tangents electronic newsletter
Toolkit Workbook

UPDATE – DELIVERY OF GOVERNMENT AND EDUCATIONAL SERVICES

Nebrask@Online Management Contract. The contract between the State Records Board and Nebrask@Online will expire at the end of January, 2004.An RFP has gone out requesting a different funding structure, focus on e-government, foreign language translation, enhanced search capabilities, and payment capabilities. It will be a three-year contact with option to renew. Mr. Schafer entertained questions.

5th Annual E-government Conference, Steve Schafer. The conference will be held on November 18, 2003 at the Cornhusker Hotel in Lincoln, Nebraska. A draft agenda was provided. Lieutenant Governor Heineman invited the NITC Commissioners to participate in the conference.

Internet2 SEGP, Tom Rolfes. Thirty states are involved in Internet2 SEGP. The University of Nebraska is a member. Through the generosity of the University of Nebraska to pay for the first year, implementation for the State of Nebraska is scheduled for July 2004. Beginning July 2005, K-12 and other higher educational institutions will need to figure out cost sharing to continue membership. The application is nearing completion and almost ready for submission.

UPDATE – PLANNING AND ACCOUNTABILITY

Report on Security Assessment and GTCF (Government Technology Collaboration Fund) Grant Extension, Steve Schafer. In August, the Computer Network External Intrusion Security Assessment Summary of Findings and Recommendations was completed. In September, agencies were briefed on the findings and each agency was to develop a plan. Mr. Schafer would like to repeat Phase II Vulnerability Testing to follow-up with agencies. The original grant was for $46,000, $22,000 has been expended, leaving a balance of over $20,000. The term of the grant has expired. Mr. Schafer requested an extension to repeat Phase II.

Commissioner Peterson moved to grant an extension of the GTCF Security Assessment Grant to June 30, 2004. Commissioner Christensen seconded the motion. Roll call vote: Heineman-Yes, Christensen-Yes, Peterson-Yes, Brown-Yes, Smith-Yes, Adams-Yes, and Aerni-Yes. Results: 7-Yes and 0-No. Motion was carried by unanimous vote.

UPDATE – NEBRASKA INFORMATION SYSTEM (NIS)
Tom Conroy, Project Director

Mr. Conroy provided a brief background for the new commissioners on NIS, a statewide financial reporting system. JD Edwards was the hired contractor. PeopleSoft purchased JD Edwards a few months ago. The State has been working with them and most of the staff that were there when it was JD Edwards. Much of the system's functionality has been implemented. Payroll and Human Resources began January 1st. The financial applications were implemented in March. In April, procurement for services was implemented to meet the August 31st deadline for LB 626. The remaining work to be completed includes the following: the balance of procurement and support; taking inventory live (supplies, etc. not large commodities); and the final piece to be done is budget preparation for state government. It is hoped to have this in place for the next funding cycle which begins September 15th. A punch list of remaining tasks is being addressed. An NIS post-team consisting of eight members and a Help Desk has been implemented. There is an ongoing advisory structure in place to gather feedback about the system and to provide a forum for information exchange such as the business users' group and payroll users' group. A Human Resources and a Procurement users' group will soon be implemented. The Steering Committee that was in place during the project will be reinstated this fall. The project has managed to remain within budget.

STATEWIDE TECHNOLOGY PLAN – UPDATE ON ACTION ITEMS
Steve Schafer, Chief Information Officer

A summary was sent to NITC Commissioners via electronic means. There were no questions or comments from the Commissioners.

OTHER REPORTS

Community Council. The Community Council report was provided earlier in the meeting under Community and Economic Development.

Education Council Report, Tom Rolfes. The council has been working on the action items in the Statewide Technology Plan. Each action item will have a task group assigned with volunteer council members.

Education Council Membership. The following slate of nominees was presented for approval by the NITC:

- Arnold Bateman, University of Nebraska, replacing Perlman, 2002-04
- Yvette Holly, University of Nebraska-Medical Center, filling vacancy, 2003-05
- Dennis Linster, State Colleges, replacing Stearns, 2002-04

Commissioner Christensen moved to approve the Education Council membership changes. Commissioner Smith seconded the motion. Roll call vote: Smith-Yes, Peterson-Yes, Heineman-Yes, Christensen-Yes, Brown-Yes, Aerni-Yes, and Adams-Yes. Results: 7-Yes and 0-No. Motion was carried by unanimous vote.

State Government Council Report, Rick Becker. A written report was provided in the meeting materials. There were no questions or comments from the Commissioners.

Technical Panel Report, Walter Weir. The Technical Panel has met three times since the last NITC meeting. Mr. Weir commended the Statewide Video Synchronous Work Group for all the efforts. The following standards and guidelines were brought to the NITC for final approval and adoption:

Recommended Standards and Guidelines – Wireless Local Area Network Guidelines

Commissioner Christensen moved to adopt the Wireless Local Area Network Guidelines. Commissioner Smith seconded the motion. Roll call vote: Smith-Yes, Peterson-Yes, Heineman-Yes, Christensen-Yes, Brown-Yes, Aerni-Yes, and Adams-Yes. Results: 7-Yes and 0-No. Motion was carried by unanimous vote.

Recommended Standards and Guidelines – Remote Access Guidelines
Commissioner Christensen moved to adopt the Remote Access Guidelines. Commissioner Smith seconded the motion. Roll call vote: Adams-Yes, Smith-Yes, Heineman-Yes, Aerni-Yes, Peterson-Yes, Christensen-Yes, and Brown-Yes. Results: 7-Yes and 0-No. Motion was carried by unanimous vote.

Recommended Standards and Guidelines – Use of Computer-based Fax Services by State Government Agencies
Commissioner Christensen moved to adopt the Use of Computer-based Fax Services by State Government Agencies. Commissioner Peterson seconded the motion. Roll call vote: Aerni-Yes, Heineman-Yes, Adams-Yes, Peterson-Yes, Brown-Yes, Smith-Yes, and Christensen-Yes. Results: 7-Yes and 0-No. Motion was carried by unanimous vote.

OTHER BUSINESS

Videoconferencing Statutory Restrictions. The open meetings law section regarding a quorum at videoconference main sites for public meetings and voting restrictions was established many years ago. Lieutenant Governor Heineman expressed interest in having the NITC review the statutes concerning the provisions of videoconferencing for public meetings.

NEXT MEETING DATE AND ADJOURNMENT

The next meeting of the NITC will be on November 13 at 1:00 pm. The exact location will be announced at a later date.

The Lt. Governor asked for a motion to adjourn. Commissioner Smith moved to adjourn. Commissioner Christensen seconded the motion. All were in favor by voice vote. The meeting was adjourned at 3:50 pm.

Meeting minutes were taken by Lori Lopez Urdiales and reviewed by the staff of the Office of the CIO/NITC.

October 31, 2003

To: NITC Commissioners

From: Anne Byers, Community IT Manager

Subject: Broadband Policy Recommendations from TechNet's *The State Broadband Index*

TechNet, a national network of more than 200 CEOs and senior executives in the high technology and biotechnology industries, recently released *The State Broadband Index*, an assessment of state policies impacting broadband deployment and demand. Nebraska is 17th overall and 10th in broadband policy. The report makes several recommendations. For your information, I've summarized the recommendations made in the report and included information on relevant state policies and efforts.

Policy Recommendations to Address Deployment Roadblocks

- States should adopt policies that standardize and expedite rights of way permitting.

  Nebraska does not have policies which standardize or expedite rights of way permitting.

- States should limit the fees imposed for rights-of-way access.

  Municipalities in Nebraska can only levy an occupation tax and a highway construction permit fee directly related to the costs incurred by the municipalities. Taxes or fees may not be collected by a municipality through in-kind services and municipalities may not require the provision of in-kind services as a condition of consent to the use of a public highway.

Supply-side Policy Recommendations

- States should adopt a broadband strategy and formal plan.

  The NITC's Statewide Technology Plan does address broadband deployment. It is not, however, as comprehensive as the broadband strategies developed by some other states.

- States should assess their broadband status through a map or catalog of existing infrastructure.

  The Nebraska Public Service Commission, in cooperation with the NTA, has begun collecting this information.

- States should allow municipalities to provide wholesale services with their own broadband networks.

LB 827, which was signed into law in 2001, allows municipalities to sell or lease dark fiber. The Nebraska State Supreme Court overturned sections of this law. The Telecommunications Act of 1996 states that states cannot prohibit any entity from providing telecommunications services. The Nebraska Supreme Court interpreted any entity to include municipalities. The Supreme Court also determined that only municipalities with home-rule charters (Omaha and Lincoln) had the authority to provide telecommunications services. Municipalities also need to give their utilities the express authority to provide telecommunications services before municipal utilities can apply to the Public Service Commission to provide telecommunications services. The U.S. Supreme Court will be hearing a case involving a similar Missouri law this year.

- States should encourage broadband investment through innovative supply-side services (acting as an anchor tenant by procuring a state network).

  The State of Nebraska is in the process of building a state network and would act as an anchor tenant.

- States should consider financial incentives for broadband deployment, in particular to underserved communities.

  The Nebraska Internet Enhancement Fund administered by the Public Service Commission was created to provide financial incentives for broadband deployment in underserved communities. The Public Service Commission is planning to open a competitive grant round this year.

Demand-side Policy Recommendations

- States should adopt initiatives that provide incentives for public sector and private sector users to access broadband networks.

  The Public Service Commission has recently approved providing support to small, rural hospitals in the state.

- States should actively encourage broadband usage by citizens through e-government initiatives.

  At this time, most e-government applications do not require broadband. Legislative proceedings in the Unicameral are videostreamed.

- States should encourage government usage of broadband applications (includes distance learning and telehealth).

  Distance education is widely used in K-12 schools in Nebraska. Efforts are currently underway to expand distance learning to additional schools and to develop a statewide distance learning network. Efforts are also underway to create a statewide telehealth network.

- States should consider providing financial support that encourages the development of broadband applications that improve government services, or support next-generation technologies.

Nebraska is not currently providing financial support that encourages the development of broadband applications that improve government services. The University of Nebraska is supporting Internet 2, which focuses on the broadband applications for education and research.

The State Broadband Index is available at
http://www.technet.org/resources/State_Broadband_Index.pdf .

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

STANDARDS AND GUIDELINES

Blocking E-mail Attachments

Category	**Groupware Architecture**
Title	**Blocking E-Mail Attachments**
Number	**XX-XXX**

Applicability

☑ **State Government Agencies**
- ☐ All ..... **Not Applicable**
- ☑ Excluding: Higher Education ..... **Guideline**

☐ **State Funded Entities -** All entities receiving state funding for matters covered by this document..... **Not Applicable**

☐ **Other:** _____ ..... **Not Applicable**

Definitions:
Standard - Adherence is required. Certain exceptions and conditions may appear in this document, all other deviations from the standard require prior approval of _____.
Guideline - Adherence is voluntary.

Status	☐ Adopted	☑ Draft	☐ Other:_____
Dates	Date: October 8, 2003 Date Adopted by NITC: Other:		

Prepared by: Technical Panel of the Nebraska Information Technology Commission
Authority: Neb. Rev. Stat. § 86-516(6)
http://www.nitc.state.ne.us/standards/

1.0 Guideline

Agencies may prohibit certain attachments from being transmitted through e-mail. There are two common ways to accomplish this. The first is to block any message that contains specific attachments from being delivered. The second is to remove any prohibited attachments before allowing the e-mail to be delivered.

1.1 Blocking E-Mail with Prohibited Attachments

E-mails that include attachments with certain extensions may be blocked at the SMTP gateway. Setting up the blocking criteria at the SMTP gateway will stop incoming Internet mail with those attachments from being delivered. The blocking will also stop outgoing Internet mail with those attachments from being sent. If any of the blocked extensions are detected, the e-mail will be deleted and a standard non-delivery report (NDR) will be returned to the sender stating that the e-mail was not delivered.

1.2 Removing Prohibited Attachments Before Delivery

An agency may also remove any prohibited attachments before allowing the e-mail to be delivered.

1.3 List of Extensions - Attachments which may be blocked

See Addendum.

1.4 Alternative Methods for Sending or Receiving Files

If an individual needs to send or receive a file with one of the blocked extensions, other alternatives for transmitting files should be considered, including: FTP; Web-based document retrieval; renaming the file; or “zipping” the file.

2.0 Purpose and Objectives

It is important to take steps to protect the state’s computing environment against the threat of viruses. Attachments with certain extensions are often used in virus attacks because of their execution access and the amount of damage they can cause.

3.0 Applicability

State Government Agencies – Agencies running a State SMTP Gateway should consider following this guideline.

4.0 Related Documents

(http://www.nitc.state.ne.us/standards/)
Security Policies – Information Security Management

[NOTE: A prior version of this document was posted for comment. After reviewing the comments received, the State Government Council adopted several changes, including making this document a “guideline.” Staff made revisions to the document to reflect the intent of these changes and to clarify language in the document.]

Addendum
List of Extensions - Attachments which may be blocked

ade – Microsoft access project extension
adp – Microsoft access project
asp – active server pages
bas – basic
bat – batch
chm – compiled HTML help file
cmd – command
com – command, executable
cpl – control panel applet
crt – security certificate
exe – executable program
hlp – windows help file
hta – HTML application
inf – set up
ins – internet communications settings
isp – internet communications settings
js – JScript
jse – JScript encoded file
lnk – shortcut
mdb – Microsoft access application
mde – Microsoft access MDE database
msc – Microsoft common console document
msi – install control file
msp – probably a windows installer patch
mst – windows installer transform
pcd – photo CD image
pif – windows program information file
reg – Microsoft registry
scr – screensaver
sct – Windows script component
shb – document short cut
shs – shell script object
url – Internet shortcut
vb – VBScript
vbe – VBScript encoded file
vbs – visual basic
vsd – visio drawing
vss – Visual sourcesafe file
vst – targa bitmap file
vsw – visio workspace file
ws – wordstar file
wsc – windows script component
wsf – windows script file
wsh – windows scripting host settings

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

STANDARDS AND GUIDELINES

Blocking Unsolicited Bulk E-Mail / "Spam"

Category	**Groupware**
Title	**Blocking Unsolicited Bulk E-Mail / "Spam"**
Number	

Applicability

☑ **State Government Agencies**
- ☐ All ..... **Not Applicable**
- ☑ Excluding Higher Education ..... **Guideline**

☐ **State Funded Entities -** All entities receiving state funding for matters covered by this document..... **Not Applicable**

☐ **Other:** _____ ..... **Not Applicable**

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Prepared by: Technical Panel of the Nebraska Information Technology Commission
Authority: Neb. Rev. Stat. § 86-516(6)
http://www.nitc.state.ne.us/standards/

1.0 Guideline

Agencies shall be allowed to evaluate and implement methods for blocking Unsolicited Bulk Email (UBE) or spam in relation to their changing e-mail needs, even if some legitimate e-mail is blocked. State Agencies that choose to adopt UBE blocking methods must meet these minimum standards.

1. Agencies must periodically review blocked e-mail statistics to determine its effectiveness and to help reduce the non-delivery of legitimate e-mail.

2. UBE blocking methods must attempt to send notification to legitimate originators of blocked e-mail with the following information:
   a. The e-mail was blocked.
   b. Possible reasons for non-delivery and information on how to restore legitimate communications.
   c. List of alternate methods of communication that maintains reasonable levels of convenience and places no undue hardship on the sending or receiving party.
   d. Links to related state statutes, standards, or guidelines used.

Cost sharing - Where feasible, agencies should work to pool resources to reduce costs to Nebraska. Agencies seeking to purchase UBE-blocking tools should consult with IMServices.

2.0 Purpose and Objectives

This standard addresses the burden on state resources due to UBE and how state agencies may address the issue. Agencies cannot expect to "solve" all problems that arise from UBE, only mitigate them.

UBE creates a significant drain of technical and operational resources. In 2003, the state will receive an estimated 2 million UBE messages for approximately 12,000 employees using e-mail. These numbers will likely continue to rise. UBE needs to be reduced to the extent possible without adding excessive costs or exceptional risks to normal flow of legitimate e-mail.

2.1 Overview

The terms spam and Unsolicited Bulk E-mail (UBE) both refer to the mass receipt of e-mail messages that are usually inappropriate for state operations.

Any automated means of sorting out UBE from e-mail messages sent by the public, vendors, or other state agencies will typically result in the rejection of some valid e-mail. Agencies should take special effort to ensure that the public can conveniently contact state agencies for official business. Blocking legitmate e-mail communication with the state should be minimized.

2.2 Other Resources

The Internet Mail Consortium (IMC) has published several reports on the problem. “Unsolicited Bulk Email: Mechanisms for Control” (http://www.imc.org/ube-sol.html) lists the technical and legal solutions being discussed and how they affect Internet mail users. “Unsolicited Bulk Email: Definitions and Problems”

(http://www.imc.org/ube-def.html) provides precise definitions of UBE and spam issues.

The Coalition Against Unsolicited Commercial Email (http://www.cauce.org/).

The State of Nebraska UBE resource web site (http://www.ims.state.ne.us/spam).

3.0 Definitions

3.1 Spam

A common term for UBE is "spam", although that term encompasses a wider range of intrusive transmissions. For instance, the term "spam" originated in the realm of Usenet news, not email. There, individuals cannot request or refuse bulk email, although some newsgroups explicitly permit or encourage its inclusion as a part of the group charter. For further information, see RFC2635 at the Internet Engineering Task Force, http://www.ietf.org.

3.2 UBE

Unsolicited Bulk Email, or UBE, is Internet mail ("email") that is sent to a group of recipients who have not requested it. A mail recipient may have at one time asked a sender for bulk email, but then later asked that sender not to send any more email or otherwise not have indicated a desire for such additional mail; hence any bulk email sent after that request was received is also UBE.

4.0 Applicability

Agencies with their own mail servers can utilize the standard UBE filtering methods provided by the State Internet email gateway. To reduce duplication costs, agencies should consider utilizing the State Internet email gateway before implementing their own.

5.0 Responsibility

Information Management Services Division may investigate and implement UBE filtering methods on the State Internet e-mail gateway, which IMServices supports. Other agencies may elect to share this service.

6.0 Related Documents

Nebraska Information Technology Commission, Individual Use Policy:
http://www.nitc.state.ne.us/tp/workgroups/security/policies/individual_use_policy.pdf

State of Nebraska Acceptable Use Policy of State Data Communications Network,
http://www.doc.state.ne.us/policies/datausage.html

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

STANDARDS AND GUIDELINES

XX-XXX IP Communication Protocol Standard for Synchronous Distance Learning and Videoconferencing

Category	**Network Architecture**
Title	**IP Communication Protocol Standard for Synchronous Distance Learning and Videoconferencing**
Number	**XX-XXX**

Applicability

☑ **State Government Agencies**
- ☑ All..... **Standard**
- ☐ Excluding _____.....**Not Applicable**

☑ **State Funded Entities -** All entities receiving state funding for matters covered by this document..... **Standard**

☑ **Other:** Entities electing to pass synchronous video over *Network Nebraska*..... **Standard**

Definitions:
Standard - Adherence is required. Certain exceptions and conditions may appear in this document, all other deviations from the standard require prior approval of NITC Technical Panel.
Guideline - Adherence is voluntary.

Status	☐ Adopted	☑ Draft	☐ Other:_____
Dates	Date: October 8, 2003 Date Adopted by NITC: Other:		

Prepared by: Technical Panel of the Nebraska Information Technology Commission
Authority: Neb. Rev. Stat. § 86-516(6)
http://www.nitc.state.ne.us/standards/

1.0 Technical Standard

All state agencies, entities that receive state funding for telecommunications, and entities that wish to pass synchronous video over the State's statewide network (*Network Nebraska*) shall use IP as their communication protocol for synchronous video.

2.0 Purpose and Objectives

The purpose of this standard is to implement a consistent communication protocol to be used by all entities wishing to pass synchronous, interactive teleconference video over the statewide network.

2.1 Background

IP is the Internet's most basic protocol. In order to function in a TCP/IP network, a network segment's only requirement is to forward IP packets. In fact, a TCP/IP network can be defined as a communication medium that can transport IP packets. Almost all other TCP/IP functions are constructed by layering atop IP.

IP is a datagram-oriented protocol, treating each packet independently. This means each packet must contain complete addressing information. Also, IP makes no attempt to determine if packets reach their destination or to take corrective action if they do not. Nor does IP checksum the contents of a packet, only the IP header.

IP provides several services:

- **Addressing.** IP headers contain 32-bit addresses, which identify the sending and receiving hosts. Intermediate routers use these addresses to select a path through the network for the packet.
- **Fragmentation.** IP packets may be split, or fragmented, into smaller packets. This permits a large packet to travel across a network, which can only handle smaller packets. IP fragments and reassembles packets transparently.
- **Packet timeouts.** Each IP packet contains a Time To Live (TTL) field, which is decremented every time a router handles the packet. If TTL reaches zero, the packet is discarded, preventing packets from running in circles forever and flooding a network.
- **Type of Service.** IP supports traffic prioritization by allowing packets to be labeled with an abstract type of service.
- **Options.** IP provides several optional features, allowing a packet's sender to set requirements on the path it takes through the network (source routing), trace the route a packet takes (record route), and label packets with security features.

In the two decades since their invention, the heterogeneity of networks has expanded further with the deployment of Ethernet, Token Ring, Fiber Distributed Data Interface (FDDI), X.25, Frame Relay, Switched Multimegabit Data Service (SMDS), Integrated Services Digital Network (ISDN), Asynchronous Transfer Mode (ATM), and most recently Multi Protocol Label Switching (MPLS). The Internet protocols are the best-proven approach to internetworking this diverse range of LAN and WAN technologies.

The Internet protocol suite includes not only lower-level specifications (such as TCP and IP), but specifications for such common applications as electronic mail, terminal

emulation, and file transfer. The Internet protocols are the most widely implemented multi-vendor protocol suite in use today. Support for at least part of the Internet protocol suite is available from virtually every computer vendor.

IP multicasting (the ability to send IP datagrams to multiple nodes in a logical group) is an important building block for applications such as video. Video teleconferencing, for example, requires the ability to send video information to multiple teleconference sites. If one IP multicast datagram containing video information can be sent to multiple teleconference sites, network bandwidth is saved and time synchronization is closer to optimal.

2.2 Objective

The objective of this standard is to permit interoperability of distance learning systems throughout the state. When all have adopted this and other standards prescribed by the state, educational opportunities will be expanded because any entity will be able to share resources with any other entity. All such traffic will be able to pass through *Network Nebraska* backbone connectivity, and the aggregated use of this network will lower overall costs for participants.

3.0 Definitions

3.1 Synchronous

Occurring at the same time. When applied to video, it means that two or more parties in different locations are conducting a simultaneous audio/video exchange over the network.

3.2 Teleconference

Video traffic where participants at separate locations communicate at the same time with one another through video and/or audio links.

3.3 TCP/IP

A protocol for communication between computers, used as a standard for transmitting data over networks and as the basis for standard Internet protocols. *Transmission Control Protocol/Internet Protocol.*

4.0 Applicability

4.1 State Government Agencies

All State agencies are required to comply with this standard.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding for telecommunications (i.e. Legislative appropriations, Education Innovation Fund, Nebraska Universal Service Fund, ESU Core Services, Infrastructure Fund, etc.) are required to comply with this standard.

4.3 Other Entities

Entities that are neither State agencies nor state-funded entities but choose to use the State-funded *Network Nebraska* for purposes of transmitting or exchanging synchronous video must comply with this standard.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. (N.R.S. 86-516 §6)

5.2 *Network Nebraska* Operational entities

The Collaborative Aggregation Partnership, composed of the University of Nebraska Computer Services Network, the Department of Administrative Services--Division of Communications, and Nebraska Educational Telecommunications, will be responsible for sharing the responsibilities of the network operations portion of *Network Nebraska*. The responsibility for identification and mitigation of non-compliant entities with respect to the IP communication protocol standard resides with the Collaborative Aggregation Partnership.

6.0 Related Documents

6.1 Video and Audio Compression Standard for Synchronous Distance Learning and Videoconferencing

(http://www.nitc.state.ne.us/standards/video/video_standard.pdf)

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

STANDARDS AND GUIDELINES

XX-XXX Contracting Guidelines for Upgrade of Distance Learning Services

Category	**Network Architecture**
Title	**Contracting Guidelines for Upgrade of Distance Learning Services**
Number	**XX-XXX**

Applicability

☐ State Government Agencies
- ☐ All.....Not Applicable
- ☐ Excluding _____.....Not Applicable

☑ **State Funded Entities -** All entities receiving state funding for matters covered by this document.....**Guideline**

☑ **Other:** Distance Learning Consortia and affiliated partners.....**Guideline**

Definitions:
Standard - Adherence is required. Certain exceptions and conditions may appear in this document, all other deviations from the standard require prior approval of _____.
Guideline - Adherence is voluntary.

Status	☐ Adopted	☑ Draft	☐ Other:_____
Dates	Date: October 8, 2003 Date Adopted by NITC: Other:		

Prepared by: Technical Panel of the Nebraska Information Technology Commission
Authority: Neb. Rev. Stat. § 86-516(6)
http://www.nitc.state.ne.us/standards/

1.0 Guidelines

Entities that receive state funding for telecommunications and public entities that are approaching contract expiration for existing distance learning services are advised to make every attempt to take advantage of the NITC efforts to aggregate services and contracts. As new contracts are contemplated for distance learning, it is recommended that discussions minimally include consideration of the following options: A) negotiate two contracts at the local level; one contract for procurement and maintenance of connective terminal hardware (CODEC) and a second contract for transport (preferably the use of *Network Nebraska*); or B) to negotiate one contract for connective terminal hardware and transport as long as the end-user has full access to and flexible use of all bandwidth on the network and has the ability to upgrade video encoding equipment as desired; and C) make transport contract expiration dates co-terminus with the *Network Nebraska* core transport contracts (contact the DAS-Division of Communications for more information).

2.0 Purpose and Objectives

The purpose of this guideline is to make the contracted services portion of distance learning contracts more flexible for the end-user and the provider and better able to accommodate future technology applications.

2.1 Background

Approximately 297 school districts joined together during the years 1996-2002 to form 11 separate interlocal agreements for the purposes of applying for and receiving lottery and Federal funds for interactive distance learning as served by telephone companies over DS-3 (45 megabit) circuits, or cable-based interconnected systems. Many of these consortia agreed to long-term video service contracts (10 years) broken up into two and four year increments. These same high school participants and Educational Service Units also negotiated for one or two T-1 (1.544 megabit) data circuits over the same DS-3s for Internet access. The video compression technologies chosen at the time was JPEG (Joint Photographic Experts Group) that delivered near-broadcast quality at approximately 8 megabits per video channel or analog video. Most recently, the cable-based interconnected systems have upgraded to digital video compression over 100 megabit, flexibly provisioned circuits.

In 2001, the major supplier of the JPEG Codecs (coder-decoder) announced that this technology would no longer be manufactured. This inspired Qwest Communications (then U.S. West) to also announce that they would no longer support nor install JPEG technology in its 14-state service area.

In 2002, the Nebraska Legislature authorized $3 million in lottery funds to be used for the Distance Education Network Completion grants that affected 45 high schools throughout the State. The Legislation stipulated that these schools were to become part of existing consortia using existing technology. As these original agreements come to the end of their service period (2006-2012), it is in the mutual best interest of the provider and end-user that this technology be replaced and the contract terms be modernized as soon as possible.

2.2 Objective

The objective of this guideline is to permit users to access all the bandwidth for which they

are paying. It will allow providers to continue service and to expand networks as required by updating the systems they use to NEBS (Network Equipment Building System) standard compatible equipment. It will allow interoperability between users among multiple consortia. It will permit new telecommunications services on the DS-3 connections in use and permit increased speeds on current services such as access to the Internet.

3.0 Definitions

3.1 CODEC

A device that encodes video and audio into data and decodes data into video and audio. CODEC stands for coder/decoder.

3.2 Interlocal agreement

An official written agreement between two or more publicly funded entities.

3.3 T-1

A data circuit that provides throughput of 1.544 Mbps.

3.4 DS-3

A data circuit that provides throughput of 45 Mbps.

4.0 Applicability

4.1 State Funded Entities

Entities that are not State agencies but receive State funding for telecommunications (i.e. Legislative appropriations, Education Innovation Fund, Nebraska Universal Service Fund, ESU Core Services, Infrastructure Fund, etc.) are encouraged to follow this guideline.

4.2 Other Entities

Entities that are neither State agencies nor state-funded entities but choose to use the State-funded *Network Nebraska* for purposes of transmitting or exchanging synchronous video are encouraged to follow this guideline.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. (N.R.S. 86-516 §6)

6.0 Related Documents

6.1 Video and Audio Compression Standard for Synchronous Distance Learning and Videoconferencing (http://www.nitc.state.ne.us/standards/video/video_standard.pdf)

6.2 IP Communication Protocol Standard for Synchronous Distance Learning and Videoconferencing (draft)